

2013-1400, -1401  
(Reexamination No. 95/000,196)

---

United States Court of Appeals  
*for the*  
Federal Circuit

---

ARLINGTON INDUSTRIES, INC.,

*Appellant,*

*v.*

BRIDEPORF FITTINGS, INC.,

*Cross-Appellant.*

---

*Appeals from the United States Patent and Trademark Office,  
Patent Trial and Appeal Board*

---

**PRINCIPAL AND RESPONSE BRIEF OF  
CROSS-APPELLANT BRIDEPORF FITTINGS, INC.**

MARK E. UNGERMAN  
COUNSEL OF RECORD  
UNGERMAN IP PLLC  
2305 Calvert Street, N.W.  
Washington, DC 20008  
(202) 461-3200

*Counsel for Cross-Appellant Bridgeport Fittings, Inc.*

November 12, 2013

---

**CERTIFICATE OF INTEREST**

Counsel for Bridgeport Fittings, Inc. certifies the following:

1. The full name of every party or amicus represented by me is:  
Bridgeport Fittings, Inc.
2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is: N/A.
3. All parent corporations and any publicly held companies that own 10% or more of the stock of the party or amicus curiae represented by me are: N/A.
4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

Ungerma IP PLLC  
Mark E. Ungerma

Morrison & Foerster LLP  
Bradley J. Meier

FATTIBENE AND FATTIBENE  
Arthur T. Fattibene  
Paul A. Fattibene

Dated: November 12, 2013

/s/ Mark E. Ungerma

## **TABLE OF CONTENTS**

	<u>Page</u>
CERTIFICATE OF INTEREST .....	ii
TABLE OF AUTHORITIES .....	iv
TABLE OF ABBREVIATIONS .....	vii
STATEMENT OF RELATED CASES .....	1
STATEMENT OF JURISDICTION .....	2
STATEMENT OF ISSUES .....	3
STATEMENT OF THE ISSUES ON CROSS-APPEAL .....	5
INTRODUCTION .....	6
STATEMENT OF FACTS .....	8
I. Statutory Background .....	8
II. Facts .....	9
A. Electrical Connectors .....	9
B. Arlington Product Line .....	12
C. Patent Family .....	14
D. Prior Art .....	18
SUMMARY OF THE ARGUMENT .....	32
ARGUMENT .....	34
I. Standard of Review .....	34
II. Claim 1 is Obvious In View Of The Teachings of Grindle, Schnittker, and Roeder .....	34
A. A Tubular Spring Steel Cable Retainer Secured In Each of Said Openings In Said Inbound End [of Said Housing] Would Have Been Obvious to One of Ordinary Skill in the Art .....	37

B. The Board Properly Found, as a Matter of Fact, that the Schnittker Cable Retainer is Secured the Inbound End of Its Housing and that it Would be Obvious to Secure in the Grindle Housing.....	39
C. The Board Properly Found that the Schnittker Grounding Ring is a Cable Retainer.....	42
D. The Board Properly Found, as a Matter of Fact, that the Combination of Schnittker and Grindle Shows Retainers that Guide said Separate Cables Toward said Cylindrical Outbound End .....	43
E. The Tubular Spring Steel Adaptor is Obvious Based on the Prior Art.....	44
F. The Board Correctly Evaluated the Purported Evidence of Secondary Considerations .....	46
G. Objective Indicia of Non-Obviousness .....	51
CROSS-APPEAL .....	55
I. The Board Incorrectly Accorded Claim 1 the Filing Date of its Grandparent Even Though the Grandparent Application Did Not Support Claim 1 in the Manner Required by Section 112.....	55
II. The Board Incorrectly Refused to Consider the Merits of Obviousness of Claim 3 .....	57
A. Incorrect Effective Filing Date.....	57
B. Had the Board Considered the Prior Art it Would Have Concluded that Claim 3 Was Obvious. ....	59
CONCLUSION .....	61
CERTIFICATE OF SERVICE.....	62
CERTIFICATE OF COMPLIANCE .....	63

## TABLE OF AUTHORITIES

Page(s)

### Cases

<i>Applied Materials, Inc. v. Adv. Semiconductor Materials Am., Inc.</i> , 98 F.3d 1563 (Fed.Cir.1996)) .....	48
<i>Arlington Industries, Inc. v. Bridgeport Fittings, Inc.</i> , 632 F.3d 1246 (Fed. Cir. 2011) .....	2
<i>Arlington Industries, Inc. v. Bridgeport Fittings, Inc.</i> , No. 3:06-cv-1105, 2011 WL 2927817 (M.D.Pa. July 18, 2011) .....	1, 39
<i>Ashland Oil, Inc. v. Delta Resins &amp; Refractories, Inc.</i> , 776 F.2d 281 (Fed. Cir. 1985) .....	46
<i>Broadcom Corp. v. Qualcomm Inc.</i> , 543 F.3d 683 (Fed. Cir. 2008) .....	38
<i>Cable Elec. Prods., Inc. v. Genmark, Inc.</i> , 770 F.2d 1015 (Fed. Cir. 1985) .....	49
<i>Conoco, Inc. v. Energy &amp; Envt'l Int'l, L.C.</i> , 460 F.3d 1349 (Fed. Cir. 2006) .....	38
<i>Crocs Inv. v. International Trade Commission</i> , 598 F.3d 1294 (Fed. Cir. 2010) .....	52, 53
<i>Demaco Corp. v. F. Von Langsdorff Licensing Ltd.</i> , 851 F.2d 1387 (Fed. Cir. 1988) .....	54
<i>Eli Lilly &amp; Co. v. Aradigm Corp.</i> , 376 F.3d 1352 (Fed. Cir. 2004) .....	38
<i>Graham v. John Deere Co.</i> , 383 U.S. 1 (1966) .....	35
<i>In re Cavanagh</i> , 436 F.2d 491 (CCPA 1971) .....	50
<i>In re DBC</i> , 545 F.3d 1373 (Fed.Cir.2008) .....	48
<i>In re Gartside</i> , 203 F.3d 1305 (Fed. Cir. 2000) .....	34
<i>In re Gershon</i> , 372 F.2d 535 (CCPA 1967) .....	49
<i>In re Glatt Air Techniques, Inc.</i> , 630 F.3d 1026 (Fed. Cir. 2011) .....	48

<i>In re GPAC</i> , 57 F.3d 1573 (Fed. Cir. 1995) .....	47
<i>In re Huang</i> , 100 F.3d 135 (Fed. Cir. 1996) .....	47, 49, 51
<i>In re Kao</i> , 639 F.3d 1057 (Fed. Cir. 2011) .....	48
<i>In re Oetiker</i> , 977 F.2d 1443 (Fed. Cir. 1992) .....	36
<i>In re Paulsen</i> , 30 F.3d 1475 (Fed. Cir. 1994) .....	47, 54
<i>In re Piasecki</i> , 745 F.2d 1468 (Fed. Cir. 1984) .....	36
<i>In re Tiffin</i> , 448 F.2d 791 (CCPA 1971) .....	47
<i>Interactive Gift Express, Inc. v. Compuserve Inc.</i> , 256 F.3d 1323 (Fed. Cir. 2001) .....	38
<i>Joy Techs, Inc. v. Manbeck</i> , 751 F. Supp. 225 (D.D.C. I 990), <i>aff'd</i> , 959 F.2d 226 (Fed. Cir. 1992) .....	48
<i>KSR Int'l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007) .....	35, 36
<i>KSR Int'l Co. v. Teleflex, Inc.</i> , 127 S.Ct. 1727 (2007) .....	36
<i>Leapfrog Enters. Inc. v. Fisher-Price Inc.</i> , 485 F.3d 1157 (Fed. Cir. 2007) .....	50
<i>Newell Cos. v. Kenney Mfg. Co.</i> , 864 F.2d 757 (Fed. Cir. 1988) .....	50
<i>Orthopedic Equip., Co.</i> , 707 F.2d at 1382 .....	49
<i>Pfizer, Inc. v. Apotex, Inc.</i> , 480 F.3d 1348 (Fed. Cir. 2007) .....	50
<i>Pierce v. Underwood</i> , 487 U.S. 552 (1988) .....	34
<i>Rapoport v. Dement</i> , 254 F.3d 1053 (Fed. Cir. 2001) .....	34
<i>Sage Prods., Inc. v. Devon Indus., Inc.</i> , 126 F.3d 1420 (Fed. Cir. 1997) .....	37

<i>Singleton v. Wulff</i> , 428 U.S. 106 (1976) .....	37
<i>Tec Air Inc. v. Denso Mfg.</i> , 192 F.3d 1349 at 1353 (Fed. Cir. 1999) .....	51
<i>Technology Licensing Corporation v. Videotek, Inc.</i> , 745 F.3d 1316 (Fed. Cir. 2008) .....	55, 57
<i>Texas Instruments, Inc. v. ITC</i> , 988 F.2d 1165 (Fed. Cir. 1993) .....	50
<i>Wyers v. Master Lock Co.</i> , 616 F.3d 1231 (Fed. Cir. 2010), <i>rehearing denied</i> , .....	19

## **Statutes**

5 USC §706(2)(E) .....	34
28 USC §1295(a)(4) .....	2
35 USC §103 .....	8, 25, 46
35 USC §112(a) .....	9
35 USC §120 .....	8, 55
35 USC §301(a) .....	9

## **Other Authorities**

Board Opinion pp. 34-42, A35-43 and Decision on Request for Rehearing, pp. 7-10, A59-62. ....	51
<i>C.f. Ex parte Remark</i> , 15 USPQ2d 1498 (BPAI 1990) .....	47
<i>Ex parte Standish</i> , 10 USPQ2d 1454 (BPAI 1988) .....	49

**TABLE OF ABBREVIATIONS**

Board	Board of Patent Appeals and Interferences
PTO	United States Patent and Trademark Office
'661 application	United States Patent Application Serial No. 09/373,427 (parent application to the '661 Patent as reflected in US 6,194,661)
'831 Patent	United States Patent No. 6,521,831 to Gretz (the patent subject to the instant reexamination)
'884 application	United States Patent Application Serial No. 09/792,185 to Gretz (parent application to the '831 Patent as reflected in US 6,355,884)
Arlington	Arlington Industries, Inc.
Bridgeport	Bridgeport Fittings, Inc.
Capital Now	<i>Capital Now</i> , a Publication of Capital Lighting & Supply, Vol. 3, No. 1, Ex. A
District Court Action	<i>Arlington Industries, Inc. v. Bridgeport Fittings, Inc.</i> , No. 3:06-CV-1105
EC&M (Oct. 1998)	The Magazine of Electrical Design, Construction & Maintenance, <i>Project Management: Fertile Ground for Growing Profits</i> , October 1998
EC&M (Sept. 1999)	The Magazine of Electrical Design, Construction & Maintenance, <i>Ten Tips for Proper Motor Selection</i> , September 1999
Exhibit H	Arlington's Price Schedule (1987)
Exhibit I	Arlington's Catalog No. 491 (1991)
Exhibit J	Arlington's Snap-Tite Connectors (1996)
Gretz '933	United States Patent No. 6,080,933 to Gretz
Grindle	United States Patent No. 1,295,304 to Grindle
O'Neil	United States Patent No. 5,373,106 to O'Neil
Schneiderman	United States Patent No. 2,749,148 to Schneiderman
Schnittker	United States Patent No. 4,885,429 to Schnittker
Roeder	United States Patent No. 2,744,769 to Roeder
SNAP <sup>2</sup> IT® duplex connectors	Arlington 3838AST, 3838ST, and 4040ST SNAP <sup>2</sup> IT® duplex connectors



## **STATEMENT OF RELATED CASES**

This cross-appeal by Bridgeport Fittings, Inc. (“Bridgeport”) arises from the *inter partes* reexamination of U.S. Patent No. 6,521,831 (“the ’831 Patent”) from the decision by the Board of Patent Appeals and Interferences in Reexamination No. 95/000,196. No other appeal in or from the same reexamination proceeding in the PTO was previously before this or any other court.

The ’831 Patent is the subject of a district court litigation in the U.S. District Court for the Middle District of Pennsylvania in *Arlington Industries, Inc. v. Bridgeport Fittings, Inc.*, Civil Action No. 3:06-CV-1105 (the “district court action”), filed on May 31, 2006. In the litigation, Arlington has accused Bridgeport’s Whipper-Snap Duplex Connectors, catalog numbers 3838AST and 3838ST (the “Duplex Connectors”) of infringing the ’831 Patent and U.S. Patent No. 5,266,050 (the “’050 patent”).

In the district court action, the district court granted Bridgeport’s motion for summary judgment of non-infringement of the ’831 and ’050 patents after a *Markman* hearing. That decision was appealed to this Court.

On January 20, 2011, this Court issued an opinion and order construing certain terms. *Arlington Industries, Inc. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246 (Fed. Cir. 2011). This Court rejected the district court's construction of the claim term "spring metal adapter," as used in both the '831 and '050 patent, and instead construed the disputed claim term to mean "an adaptor made of spring metal." *Id.* at 1256. This Court also vacated the district court's finding of non-infringement. *Id.* at 1256-57. After the mandate issued, the case was remanded to the district court for further proceedings in accordance with this Court's claim construction.

The portion of the district court litigation relating to the '831 Patent has not been advancing during the subject *inter partes* reexamination.

### **STATEMENT OF JURISDICTION**

This cross-appeal arises from a final decision of the Patent Trial and Appeal Board in a reexamination proceeding. This Court has jurisdiction under 28 U.S.C. §1295(a)(4).

## **STATEMENT OF ISSUES**

1. Whether the Board erred as a matter of law in construing “a tubular spring steel adaptor secured in each of said openings in said inbound end.”

2. Whether the Board’s conclusions that Grindle in combination with Schnittker teaches a retainer “secured in each of said openings in said inbound end” is supported by substantial evidence.

3. Whether the Board’s conclusion that it would be obvious to combine Schnittker and Grindle is supported by substantial evidence.

4. Whether the Board erred as a matter of law when it found that the retainer’s tangs must “*guide said separate cables towards said cylindrical outbound end*” in light of the breadth of the term “towards”

5. Whether the Board’s reliance on Roeder for the disclosure of a “spring steel adapter” is subject to challenge for the first time in this

appeal and in view of Arlington's pervasive user of "spring steel adapters" more than a year before any possible effective filing date.

6. Whether the Board's findings are correct as a matter of law and supported by substantial evidence after careful review of all evidence supporting and contrary to finding secondary considerations.

**STATEMENT OF THE ISSUES ON CROSS-APPEAL**

1. Whether the Board erred in concluding that claims 1, 4 and 5 are entitled to the benefit of a grand-parent filing date even though the grand-parent application did not support the claims in the manner required by Section 112.

2. Whether the Board erred in concluding that a dependent claim 3 is entitled to the benefit of the filing date of the claim from which it depends entirely by virtue of its dependency where the dependent claim recites subject matter not supported by the specification which otherwise support the subject matter of the independent claim.

## **INTRODUCTION**

Arlington and Bridgeport are fierce competitors and no strangers to litigation or this Court. While the '831 Patent is currently the subject of litigation between them, that litigation does not give rise to this appeal.

This appeal arose because Arlington is not satisfied with the reasoned and considered opinion of the United States Patent & Trademark Board of Patent Appeals and Interferences, now the Patent Trial and Appeals Board (PTAB) and the PTAB's denial of Arlington's Request for Rehearing.

The patent under reexamination is entitled, "Duplex Electrical Connector with Spring Steel Cable Retainer," yet no prior art was identified in the patent's original examination that showed a Duplex Electrical Connector and no prior art was identified in the reexamination that showed a spring steel cable retainer. The PTO readily agreed that the prior art cited by the Requester, Bridgeport, showing duplex electrical connectors having "a pair of parallel openings in said inbound end" raised a substantial new question of patentability and that a reasonable examiner would consider the prior art identified

in the Reexamination Request important in making a determination as to patentability. The order granting reexamination went on to state that the limitation of “a pair of parallel openings in said inbound end” was expressly identified by the previous examiner as critical to patentability. A2114.

Arlington now admits that duplex electrical connectors were in the prior art and indeed in its own product line before the '831 Patent. Arlington did not so inform the original examiner. This reexamination gave the Patent Office its opportunity to consider the claims in light of prior art showing “Duplex Electrical Connectors” and prior art showing a tubular cable retainer. In view of this material prior art, the Patent Office judged claims 1, 5 and 6 to be invalid and the Board twice determined that there was no reason to reverse the rejection of those claims.

Unfortunately the examiner and the Board applied the wrong standard to determination of entitlement to the benefit of the filing date of an earlier application and thus excluded consideration of additional references which invalidate claims 3 and 4 in addition to claims 1, 5 and 6.

## **STATEMENT OF FACTS**

### **I. Statutory Background**

35 USC §103 provides that:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.

The effective filing date is governed by 35 USC §120 which provides in relevant part:

An application for patent for an invention disclosed in the manner provided by section 112(a) (other than the requirement to disclose the best mode) in an application previously filed in the United States, or as provided by section 363, [which is filed by an inventor or inventors named] *which names an inventor or joint inventor* in the previously filed application shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application. [Foot



note –Effective March 16, 2013, §120 is amended to delete text in brackets and add text in italics.]

35 USC §112(a) provides:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

Former 35 USC §301(a) provided for inter partes reexamination stating:

In General.—Any third-party requester at any time may file a request for inter partes reexamination by the Office of a patent on the basis of any prior art cited under the provisions of section 301.

## **II. Facts**

### **A. Electrical Connectors**

The electrical connectors described in the '831 Patent involve basic mechanical technologies. The technology utilized for these devices is extremely well understood and predictable. A person of ordinary skill in the art “would either have some degree in an appropriate branch of

engineering and maybe a couple of years of experience, or else he would have a lesser qualification, perhaps a trade school diploma and 3 or 4 years of experience, or else he would have a lesser qualification, perhaps a trade school diploma and 3 or 4 years of experience in a relevant industry. A934-935 (Transcript of Sworn Testimony Given by Requestor's Technical Expert, Dr. Williamson on 23 January 2007, p. 180, l. 16-23.) As will be seen in connection with the discussion of particular references, the mechanical elements and features set forth in the claims are well-known, perform known functions in a known manner and do not yield any unusual or unexpected results either individually or due to their combination or cooperation.

A connector serves to join a cable to a junction box. The cable runs into the inbound end of a connector housing and the wires in the cable exit the housing out of the outbound end and into a junction box. A79. (1:19-40) The portion of the connector housing that lies inside the junction box is the inbound end, and the portion of the connector body that is outside the junction box is the outbound end. A74 (Figure 2, element 21 and A80 (3:21).

Schnittker has external threads 44 to couple the connector to a junction box. A2520 (4:10-13). The opening in the outbound end, the portion of the connector with the external threads 44, is described as the third cavity 54. A2520 (4:37-39), A2517 (Fig 4:54). The portion of the connector body outside of the junction box defines the first and second cavities 50 and 52. The first and second cavities (openings in the inbound end) are defined by surfaces 56, 58, 60, 62, 64, 66 and 68. A2520 (4:20-36). A2517 (Fig 4:50 and 52).

The grounding ring is inside the connector housing engaging surfaces 62 and 64 A2521 (6:14-19), A2516 (Fig. 1), and it is thus within or inside the opening in the housing.

The devices described in the '831 Patent have three (3) main structural features:

1. A connector body or housing (12), Col. 3, l. 63; Col. 5, l. 41-48 shown in Figs. 1-3 and 6. A74-76, 78. Only Figs. 3 and 6 show a housing with a pair of parallel openings.
2. A mechanism for joining the housing to an electrical pane, or junction box, spring steel adaptor (28) shown in Figs. 1-3, A74-76, A80 (4:13); and

3. A mechanism for joining an electrical cable to the housing, cable retainers (20) (22) shown in Figs. 1-6, A74-78, A80 (3:66-4:1).

### **B. Arlington Product Line**

Arlington has long sold connectors with threaded mechanisms for connecting a connector body or housing to a junction box and virtually identical connectors except with a spring steel adaptor instead of the threaded mechanism for attaching the connector body to a junction box. The figure below, taken from a 1996 advertisement of Arlington connectors, shows an example. A470 (Exhibit J).



Arlington has also sold duplex connectors with threaded mechanisms for connecting a connector body or housing to a junction box and virtually identical connectors except with a spring steel adaptor instead of the threaded mechanism for attaching the connector body to a junction box. The SG3838 duplex connector with a threaded mechanism for connecting a connector body or housing to a junction box was shown in a 1991 Arlington Catalog. A466. (Exhibit I) The virtually

identical SG3838ST duplex connector, except with a spring steel adaptor instead of the threaded mechanism for attaching the connector body to a junction box appeared in an Arlington 1996 advertisement. A471 (Exhibit J).



SG3838 – A466, 1991



SG3838ST – A471, 1996

Tubular spring steel adaptors secured to the outbound end of adaptors secured to the outbound end of a connector housing have been in the prior art at least since the issuance of the '050 patent on

November 30, 1993. A1443 (Memorandum in Civil Action No. 3:06-cv-1105, Dkt. 307, p. 2)

### **C. Patent Family**

The '831 Patent is the second continuation-in-part in a line of three patent applications. A73 (Line 63).

U.S. Patent Application 09/373,427 (the '661 application) was filed August 13, 1999 and matured into U.S. Patent 6,194,661 on February 27, 2001. *Id.*

U.S. Patent Application 09/792,185 (the '884 application) was filed on February 23, 2001 as a Continuation-in-Part of the '661 application and matured into U.S. Patent 6,355,884 on March 12, 2002.

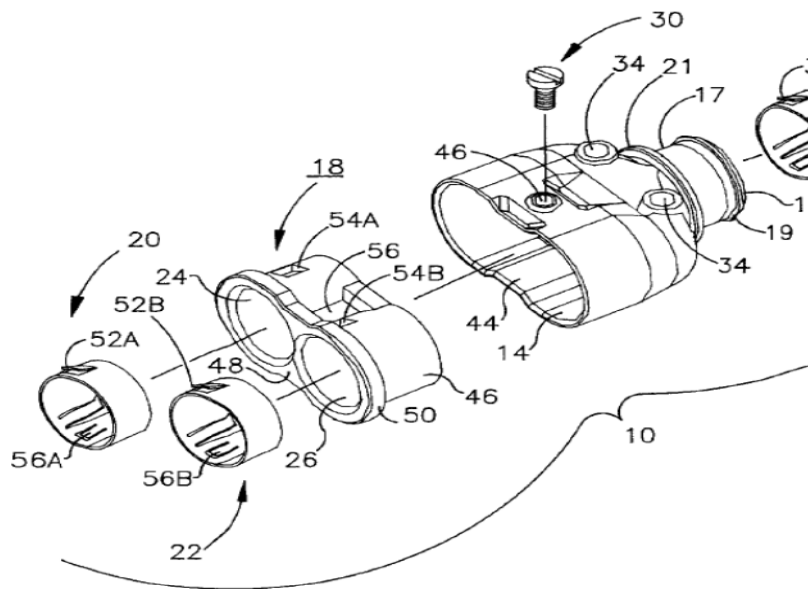
The application that led to the '831 Patent was filed on August 29, 2001 as a Continuation-in-Part of the '884 Patent. A73 (Lines 22 and 63).

Claim 1 of the '831 Patent recites “a housing having a cylindrical outbound end, a generally oval inbound end ... [and] a pair of parallel openings in said inbound end.” A81-82.

The '661 application shows a housing (12) having a cylindrical outbound end (16), a generally oval inbound end (14) with a single

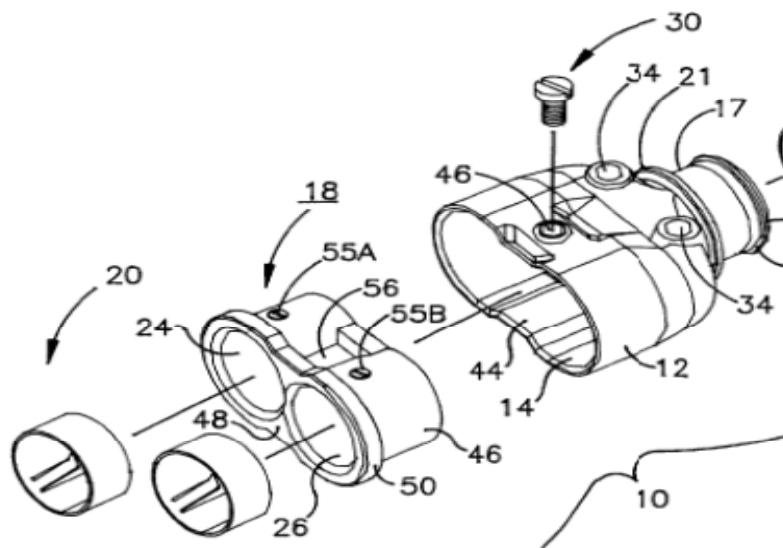
generally oval opening in the inbound end, Fig. 1. A2564. The '661 application does not illustrate or describe a housing with a pair of parallel openings in a generally oval inbound end. The '661 application discloses an insert (18), which has two openings. The insert (18) is distinct from the housing (12). This distinct component insert (18) is not part of the housing. As described in the '661 patent:

“Insert 18 is then inserted into the inbound end 14 of the housing 12 until fully seated. Screw 30 is then tightened into threaded hole 46 and engages surface 56 to retain insert 18 in the housing 12.” A2567-8 (4:66-5:2); A2564 (Fig. 1).



'661 Fig. 1. A2564

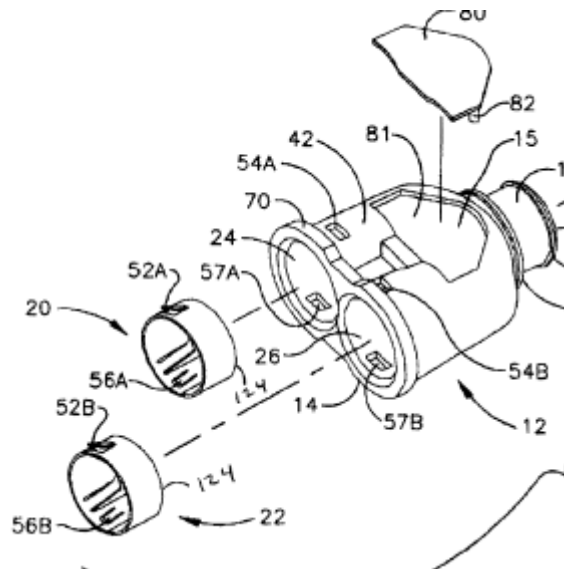
The '884 application shows three embodiments of a connector, A2570, A2572, A2573 (Figs. 1, 9 and 10). All three embodiments have a housing (12), have a cylindrical outbound end (14), with a single generally oval opening, in the inbound end. Like the '661 application, all three embodiments have an insert that is distinct from the housing (12). A screw (30) engages the insert (18) to retain the insert (18) in the housing (12). A2576 (5:12-15) Figs. 1, 9 and 10. A2570, A2572, A2573. It is the insert (18) that has two openings and the housing (12) has only the single, generally oval opening on its inbound end. The '884 application does not illustrate or describe a housing with a pair of parallel openings in a generally oval inbound end.



'884 Fig. 9. A2572



The '831 Patent is the first patent in this chain to eliminate the insert and substitute a housing with a pair of parallel openings for the housing with a single "race track" shaped opening. '831 Patent Figure 3, A76 shows the housing with two parallel openings in the inbound end.



'831 Fig. 3 A76

The '831 Patent candidly admits to being an improvement to the '661 patent:

A third and preferred embodiment simplifies the duplex connector of U.S. Patent No. 6,194,661 even further by eliminating the need for an insert. In this embodiment, the inbound end of the connector housing is modified to accept the spring steel retainers without the need for an insert. This greatly simplifies the construction of the duplex connector by completely eliminating the need for a separate part. A74. '831 Patent 2:42-48.

Claim 3 of the '831 Patent recites an insert with interior walls and “said walls each including an annular ridge.” A82 (8:2).

#### **D. Prior Art**

Both Grindle and Schnittker are directed towards connectors specifically designed for use with armor-clad cable. A2504 (Grindle 2:70-74) and A2520 (Schnittker 3:54-57). Grindle shows a duplex electrical connector housing with a cylindrical outbound end, an oval inbound end and a pair of parallel openings. A2504 (Grindle Fig. 5) and A2505 (2:65). The retaining mechanisms of Grindle are screws 6 and 6'. A2504 (Fig. 2) and A2505 (1:46-48 and 2:1-67). Grindle joins an armored wire to a junction box. A2505 (1:14-18). The Schnittker is directed to the same application. A2520 (4:10-14). Grindle discloses the use of a screw to more securely hold the armor within the cable. A2505 (1:42-48 and 2:65-69). Schnittker contains express motivation to utilize the arrangement disclosed therein in an electrical connector:

“Accordingly, it is a primary object to provide a metal-clad cable connector capable of securely coupling a metal-clad cable to a junction box while providing a grounding mechanism therefore.” A2579 (1:63-66)

Roeder is analogous art as it is directed to the same field of endeavor, namely attaching a cable to a junction box, A2511 (1:15-24)

and in any event is reasonably pertinent to the particular problem with which the inventor is involved, namely a connector for attaching an electrical cable to a junction box using resilient lugs and members. *See Wyers v. Master Lock Co.*, 616 F.3d 1231 (Fed. Cir. 2010), *rehearing denied*, p. 15, Claim 1. The combination requires no more than logic, judgment and common sense and would have been obvious to one of ordinary skill in the art in light of Grindle, Schnittker and Roeder.

**1. The Grounding Ring of Schnittker is a Cable Retainer and it is obvious to combine with Grindle.**

The Schnittker grounding ring (16) is a ‘tubular spring steel cable retainer’ and performs a cable retaining function, Schnittker A2522 (7:48-50), and a grounding function just as the spring steel retainers 20 and 22 shown in the ’831 Patent perform both functions. Arlington’s contrary arguments are incorrect. ’831 claim 1 states, the “cable retainer” is secured in the opening and is not specific as to how it is secured. According to the ’831 Patent, various ways to secure the retainer are possible: set screws A80 (4:42-45), annular ridges (5:4-14) or outwardly extending tangs cooperating with tang apertures. A81 (5:26-34) ’831 claim 1 does not exclude use of a grommet to secure the cable retainer to the housing. The cable retainer (grounding ring 16) of

Schnittker is secured in the opening in the connector body. Schnittker states, “Since the angled leading tines engage the irregular corrugated surface of the cable, a force tending to pull the cable out of the connector is resisted since the grounding ring 16 cannot move rearwardly of the connector due to the engagement of the grommet with the grounding ring and washer 20.” That is all that is required by Claim 1. (7:48-53)

’831 claim 1 is not limited to a particular way of securing the cable retainer. Claim 4, confirmed by the Examiner, recites how the retainer is secured, but Arlington elected not to include that language in Claim 1.

**2. Schnittker Shows Retainers that Guide the Cable toward the Outbound End; and Which May Be Combined with Grindle.**

Arlington admits that the tangs in Schnittker center the cable and that it is centered straight down the bore of the connector.

Arlington Br. 52. Because the outbound end of the connector is “straight down the bore,” the centering operates to guide toward the outbound end. A315. Arlington’s argument is largely that the inwardly extending tangs perform a grounding function, but that the ring (16)

cannot perform the retaining function because there are other elements which hold the element (16) inside the connector body.

Arlington takes an overly limited view of the combinability of references, does not address the combined teachings and incorrectly argues that there are reasons not to combine. Arlington selectively ignores parts of Schnittker rather than view the reference and its teachings as a whole.

Arlington incorrectly argues that the references as combined would not guide the cables toward the outbound end because of an “implied” requirement of an offset. There is no “offset” recited or required in ’831 claim 1.

### **3. The Mechanism to Hold the Retainer is Not Claimed.**

Arlington argues that the Schnittker grounding ring is not secured in an opening in the inbound end because it is secured by multiple components “near” the outbound end. The claim does not recite any mechanism to hold the retainer and any mechanism could be used. Arlington chose not to amend the claims to recite a specific mechanism to hold the retainers and a retainer secured by any number of components is still secured. Arlington’s argument that it is secured

near the outbound end is similarly irrelevant. The claim does not recite that the retainers must be any distance from the outbound end, only that it is an opening in the inbound end. In fact, the inbound end of a connector housing abuts the outbound end. Simply stated, there is no claim limitation specifying proximity to the outbound end.

It would be readily apparent to one of ordinary skill in the art that the Schnittker ring could be held in place by Grindle screws 6’.

Arlington incorrectly argues that the Kiely Deposition testimony supports its position that the Schnittker ring would not be used in a duplex connector. Kiely testified that the grommet and gland nut would not be used, Kiely Depo. at 213, and did not testify that a grounding ring as disclosed in Schnittker would not be used with the Grindle housing. There is no recitation of a mechanism for securing the ring and it is obvious. Claim 4, which does recite a mechanism, was Confirmed.

**4. The Combination of References Suggests a Retainer with Tangs to Guide Said Separate Cables toward Said Cylindrical Outbound End.**

Arlington acknowledges that the inwardly extending tangs “center a cable in a single-bore connector.” This centering operates to “guide” the cable. Arlington argues that the offset in the connector,

prevents the centering tangs from guiding toward the outbound end.

Arlington's argument fails. First, it is improperly attempting to import an offset limitation from the specification into the claims and it has not considered that the construction of "towards" said outbound end does not require an offset or deflection.

#### **5. Roeder is Analogous Art.**

Arlington attempts to distinguish Roeder from the alleged preferred embodiment of the '831 Patent, but does not distinguish Claim 1 from Roeder. Roeder shows an electrical connector ('831 Claim 1, Preamble); A 2511 (Roeder 1:16, 35, 42, 57 and 3:11); a housing having a cylindrical outbound end ... and an interior channel linking [and] inbound end and said outbound end (10); and a tubular spring steel adapter secured to said cylindrical outbound end of said housing (16); said adapter having outwardly extending tangs (17) and is reasonably pertinent. The type of conductor, cable, grounding and permanency are not recited in Claim 1 and none of these are relevant to the claim language at issue.

Roeder is no more or less temporary than the Snap2It device. Arlington asserts to be within the scope of the claims. Either device

may be removed from a junction box by prying off the tubular spring steel adapter. A469 (Exhibit J, p.2, Col. 1) and A470 (Exhibit J, p.3, lower left corner.) Arlington's assertion that Roeder would not be combined with Grindle because it is not properly grounded is both baseless conjecture and not related to any limitation in claim 1. All of the references in the combination are electrical connectors intended to join cables to a junction box. The statements contained in the Gretz declaration are merely self-serving opinions and not factually related to claim limitations. For these reasons, reliance on Roeder is entirely appropriate.

Arlington did not contest the examiner's position that a spring steel adaptor would be obvious from Roeder. Arlington never took that position before the Board.

Had Arlington taken that position, the Board could have relied on other references which explicitly spelled out spring steel, such as Arlington's own Exhibit J, A469 or ONeil, A2524, assigned to Arlington and having an inventor in common with the '831 patent.

The Board entered detailed findings and analysis in its decision. A1-51.



The Board found that claim 1 was not limited to any particular orientation of the tangs other than “inwardly extending,” refused to read further limitations from the specification into the claims and that the Schnittker tines were the equivalent of the claims. A27

The Board found that Schnittker’s grounding ring performed as a cable retainer. A30. The Board considered what the combined teaching of the prior art would have suggested to those of ordinary skill in the art and that combining the teachings of references is different than combining the specific structures. *Id.*

The Board found that the Roeder bushing is an electrical connector housing equivalent to the tubular spring steel adaptor of claim 1. A32

The Board recognized that evidence of secondary considerations must be considered and stated:

We consider anew the issue of obviousness under 35 USC §103, carefully evaluating and weighing both the evidence relied upon by the Examiner and the objective evidence of nonobviousness. A36

The Board weighed the evidence submitted by Arlington and found that it was not commensurate in scope with the claim. The third party declarations failed to provide an element-by-element analysis and

the inventor declaration demonstrated that 96% of the sales included an unclaimed feature. The inventor declarations further failed to put the gross sales data in the light of market share. A36-37.

The Board also carefully considered Arlington's purported evidence of long-felt need and found it similarly lacking. A39-42.

Arlington's product does not embody and is not co-extensive with the claims. The product has an insert in the housing that carries the cable retainers and does not have a housing with a pair of parallel openings in its inbound end. Nothing submitted with Arlington's Brief shows any connection between its "Duplex Snap2It" product and the claims. The Gretz Declaration relied on by Arlington omits Gretz Attachment 1 which purports to show how the "Snap2It duplex and '831 claim 1 are the same," but in fact shows an insert separate from the housing A493 (p.3), a securing screw to secure the insert in the housing A492 (p. 2), and an insulating bushing A495 (p. 5), none of which are recited in claim 1. Claim 1 covers products without an insert and the insert is only introduced in dependent claims 2 and 3, which are not at issue in this appeal. In addition, the insulated throat, for some of the products referred to in the evidence, is not claimed at all. Claim 1 also

does not recite the peepholes in the housing A493 or the mechanism for securing the cable retainer, *i.e.*, the outward tangs A493-494, or the configuration and material of the inward tangs A494 – all present in the commercial product. Finally, the duplex Snap2It product is not even covered by Claim 1 because it has a housing that exhibits a single generally oval shaped opening in the inbound end of the housing and not a pair of parallel openings. Arlington’s product has a pair of openings in the insert, not in the housing. A492-493 and A2001-2002 (Kiely Decl. ¶28.)

Furthermore, Arlington’s submission establishes that there is no nexus between its commercial products and the connector of the ’831 patent. Arlington stated in the Response to the ACP, “The electrical connector of the ’831 patent is not a temporary connector but rather a permanent connector.” A1347 (Patent Owner’s Response, ¶ 25, lines 2-4.) Arlington also stated, “In the ’831 patent there is absolutely no intention or desire to have an easily removed or temporary connector.” *Id.*, lines 10-11. While this is not even a claimed feature, Arlington’s duplex Snap2It connector clearly is a temporary connector that can be “easily removed.” Arlington promotes the SNAP-TITE feature of the

Snap2It connectors by advertising “Remove and re-use SNAP-TITE connectors with the twist of a screwdriver!” A469-470 (Ex. J.) By Arlington’s admission, there can be no nexus between the permanent connectors of the ’831 patent and its commercial “remove and re-use” products. The evidence demonstrates that unpatented futures drive sales of Arlington’s duplex Snap2It product. A476 Exhibit L, Arlington’s advertisement for its duplex Snap2It product, promotes the insert as a “2-component connector,” “Cost Less than Steel duplex fittings!” and insulated throats. None of these are claimed features and in addition to the lack of a pair of parallel openings in the housing, demonstrate that the product neither embodies the claimed features nor is coextensive with them as required by Arlington’s sales figures prove conclusively that success, if any, is attributable to unclaimed features. The models with the unclaimed insulated throats (3838AST and 4040AST) sold nearly 24 million units as compared to less than 1 million units without the throat insulator (3838ST). Finally, Arlington’s advertisement for its single cable Snap2It product, A473 Ex. K, never asserted as being within the scope of claim 1 (not a duplex connector) promotes the price, speed/time savings, and no tools

necessary – all advantages obtained without the combination of features in claim 1 and thus further demonstrating that Arlington's modest sales are not attributable to the claimed combination.

Similarly, the first Supplemental Declaration of Thomas J. Gretz provides no additional objective evidence to support a nexus between the claimed invention and any alleged success. Gretz is Arlington's VP and general manager, A496, and the named inventor on the ' 831 Patent and therefore is biased. Gretz admits that there is always a need for a fitting that can be installed with less difficulty and shorter labor time. A497 (Gretz Decl., ¶ 7.) Gretz states that "the duplex Snap2It connectors help to solve these installation problems due in part to the fact that no tools are required." A498 These are general objectives or desires for most electrical connectors and provide no additional nexus or connection between the claimed invention and any success. Gretz states that the total number of units sold of the duplex Snap2It line until June 2007 was 24,843,433. Gretz additionally states that the total number of all conventional duplex connectors sold during that time period was 25,920,558. Gretz Decl. A604 More conventional duplex connectors were sold by Arlington than Snap2It connectors in the same

time period. This indicates that Arlington's customers are as likely to buy a conventional duplex connector as a Snap2It duplex connector. This does not indicate any clear preference for the Snap2It duplex connector even over Arlington's conventional duplex connector and only speaks to Arlington's products and not the entire duplex connector market. Arlington says nothing about the availability of its conventional duplex connectors or how many millions of connectors are sold by others. Without information about the size of the entire duplex connector market, Arlington's arguments are fatally defective and insufficient to establish commercial success. Accordingly there is no factual evidence to even evaluate commercial success.

The publication of Capital Lighting and Supply entitled *Capital Now*, Vol. 3, No. 1, A1067 provides no objective evidence in establishing commercial success. Jeff Kretzer, a foreman for John Hall Electric, is quoted in the publication as saying, "You snap the cables in and go, all without tools. It's very fast at the panel. There are no set screws or lock nuts to adjust." A1068-1070. The feature of a tool-less connector is a non-novel feature that is disclosed in the cited prior art references, such as Roeder. Also, Kretzer is commenting on Snap2It connectors

generally, A1068 which include single cable connectors as illustrated in the Oct. 1998 EC&M publication. A473. Therefore, Kretzer's comments are not even attributed to a duplex connector. The publication also quotes Kretzer as saying, "The connectors have an insulated throat which protects the wire. There are no sharp edges. It was a major plus for us." A1070. Accordingly, the insulated throat, an unclaimed feature, may equally be attributed to any alleged commercial success. The raw sales figures in the Gretz Decl., p. 2, A603 prove that sales are mostly attributed to the unclaimed feature. The AST suffix referring to the unclaimed insulated throat. Furthermore, Arlington's commercial devices all have inserts. Arlington cannot establish a nexus between sales of a device with an insert and claims of such a broad scope that no insert is required. Accordingly, this publication or promotional material by a supplier that sells Arlington's products does not provide any objective evidence linking or providing a nexus between the claimed invention and any alleged commercial success.

**6. There is no Competent Evidence of Long Felt Need.**

The evidence and declarations at best indicate an opinion of a general need or desire for connectors to be easily and quickly installed

without any objective facts. Designs to achieve easier installations are in the prior art, such as those disclosed in Roeder and Schnittker. There is no indication that any long-felt need went unanswered because of the failure of others to develop a solution or that they failed because the devices lacked features claimed in the patent.

The Board found that Arlington did not separately argue claims 5 and 6. A44

### **SUMMARY OF THE ARGUMENT**

The Board correctly affirmed the Rejections of claims 1, 5 and 6. Arlington waived any arguments as to the claim constructions, subject to de novo review. Instead Arlington must restrict itself to questions of fact that it raised to the Board, which are reviewed for substantial evidence.

Substantial evidence supports the Boards findings (1) the scope and content of the prior art, (2) the level of ordinary skill in the pertinent art; (3) the differences between the claimed invention and the prior art; and (4) evidence of secondary considerations.

The Board correctly found that the combination of prior art would have been obvious and that it taught:



“a pair of parallel openings in said inbound end [of the housing]”;

“a tubular spring steel cable retainer secured in each of said openings in said inbound end [of the housing] ... said retainers including a set of inwardly extending tangs to receive and engage said separate cables inserted from said inbound end and guide said separate cables toward said cylindrical outbound end in a manner that said separate cables are advanced to said outbound end”;

“said inwardly extending tangs restricting removal of said separate cables by force applied on said separate cables from said inbound end; and

“a tubular spring steel adapter”.

The Board correctly weighed the purported objective evidence of non-obviousness including evidence purporting to demonstrate the secondary consideration and evidence contrary to the purported secondary considerations and found that the evidence was insufficient to and found claims 1, 5, and 6 obvious. The Boards finding is supported by substantial evidence.

On cross-appeal, the Board did not consider whether the claimed feature of a housing having a pair of parallel opening was supported by the grand-parent, and thus erred in determining entitlement to the grand-parent filing date. The Board further erred as a matter of law in

concluding that claim 3 was entitled to the effective filing date of claim 1 from which it depends without evaluating whether the additional recitations in claim 3 are themselves supported by the grand-parent application.

## ARGUMENT

### **I. Standard of Review**

The Board's factual findings are reviewed for substantial evidence and its legal determinations *de novo*. 5 USC §706(2)(E); *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). The substantial evidence standard of review merely requires evidence minimally sufficient, more than a mere scintilla, such that "a reasonable mind might accept the evidence as adequate to support a conclusion." *Pierce v. Underwood*, 487 U.S. 552, 565 (1988). The determination of what a reference teaches is one of fact, as is the existence of a reason for a person of ordinary skill to combine references. *Rapoport v. Dement*, 254 F.3d 1053, 1060 (Fed. Cir. 2001); *see also Gartside*, 203 F.3d at 1316.

### **II. Claim 1 is Obvious In View Of The Teachings of Grindle, Schnittker, and Roeder.**

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). Although the ultimate determination of obviousness under §103 is a question of law, it is based on several underlying factual determinations including (1) the scope and content of the prior art, (2) the level of ordinary skill in the pertinent art; (3) the differences between the claimed invention and the prior art; and (4) evidence of secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-78 (1966). *See also KSR*, 550 U.S. at 407. (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

In *KSR*, the Supreme Court held that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 550 U.S. at 407. The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would

recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Id.* at 417.

The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* In rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a *prima facie* case of obviousness. Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). *See also In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984).

The "rigid approach" to obviousness was rejected in *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739 (2007) ("A patent for a combination which only unites old elements with no change in their respective functions ... obviously withdraws what is already known in the field of its monopoly and diminishes the resources available to skillful men.") *Wyers v. Master Lock Co.*, (Fed. Cir. July 22, 2010), p. 15, decided just this week, confirms that the legal determination of

obviousness may include recourse to logic, judgment, and common sense, in lieu of expert testimony.

[Any determination on obviousness is a two-step process. The first step is to construe the applicable claim language. The second step is to evaluate the Graham factors against the claim as properly construed.]

**A. A Tubular Spring Steel Cable Retainer Secured In Each of Said Openings In Said Inbound End [of Said Housing] Would Have Been Obvious to One of Ordinary Skill in the Art**

The patent examiner found and the board affirmed that Schnittker disclosed a tubular spring steel cable retainer, that Grindle disclosed a duplex connector with a housing having a pair of parallel openings in its inbound end, and that it would have been obvious to use a cable retainer as shown in Schnittker in the parallel openings in the inbound end of the Grindle housing.

**1. Construction**

A federal appellate court need not consider an issue not passed upon below. *Singleton v. Wulff*, 428 U.S. 106, 120 (1976). In *Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1446 (Fed. Cir. 1997) this court held:

By and large, it is our place to review judicial decisions – including claim interpretations and grants of summary judgment – reached

by trial courts. No matter how independent an appellate court's review of an issue may be, it is still no more than that – a review. With a few notable exceptions, such as some jurisdictional matters, appellate courts do not consider a party's new theories, lodged first on appeal. If a litigant seeks to show error in a trial court's overlooking an argument, it must first present that argument to the trial court. In short, this court does not “review” that which was not presented to the district court.

The doctrine of waiver applies to claim construction when the party failed to raise the claim construction argument below. *See, e.g., Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 694 (Fed. Cir. 2008); *Conoco, Inc. v. Energy & Envt'l Int'l, L.C.*, 460 F.3d 1349, 1359 (Fed. Cir. 2006); *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1360 (Fed. Cir. 2004); *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1346-48 (Fed. Cir. 2001).

Arlington did not raise the issue of claim construction to the Board and therefore should not be heard to challenge the Board's finding “as a matter of law.” Arlington did not raise or urge any construction of the term “a retainer secured in each of said openings in said inbound end.” If fact, Arlington does not urge any construction of this phrase in its brief. Arlington now urges that the Board erred and offers a construction for the word “in” as being “*within* or *inside*”. Arlington Br.

35. Arlington waived any argument regarding construction of the word “in” by its failure to raise that before the Board.

Arlington next complains that the Board read the word “openings” out of the claim. The Board did no such thing. The term “a pair of parallel openings in said inbound end” was construed at Arlington’s urging by the United States District Court for the Middle District of Pennsylvania, C.A. No. 3:06-CV-1105 at 33. (December 4, 2007 A1890-A1926 at A1919, as a pair of parallel openings that have depth and are parallel for at least the length of the cable retainers. A11. Arlington never proffered any construction of the word opening to the Board, but even if the Board construed the term so narrowly, Arlington has shown no error and proffered no other construction.

**B. The Board Properly Found, as a Matter of Fact, that the Schnittker Cable Retainer is Secured the Inbound End of Its Housing and that it Would be Obvious to Secure in the Grindle Housing.**

The Board entered a factual finding that “Schnittker’s cable connector is coupled to a junction box at it first open end 40 using threads 44, which leaves the second open end 42 outside the junction box and distal to the first open end. (FF 52, 55) Thus we find Schnittker’s grounding ring is secured in the inbound end of the

connector.” (emphasis added) A28. Arlington did not make any distinction between the connector and the housing before the Board and has thus waived any argument on appeal. Arlington does not contend that the Schnittker grounding ring is not located within or inside the inbound end of the housing which is all that is required by the claim.

Claim 1 recites:

“a) a housing having ... a generally oval inbound end ...;  
b) a pair of parallel openings in said inbound end;  
c) a tubular spring steel cable retainer secured in each of said openings in said inbound end ...”

Thus it is clear from the claim language that all the claim requires is cable retainers in the inbound end of the housing and not in the inbound end of the connector.

Arlington did acknowledge that the Schnittker grounding ring is slid into its tubular body. A313 (line 9) and Arlington Br. 23.

Furthermore, Schnittker Fig. 2 shows that the grounding ring is in the opening in its housing. See Arlington Br. 24 (showing Schnittker grounding ring in red and housing in purple.) In addition, replacing the screw 6 of Grindle with the grounding ring 16 of Schnittker would



result in a cable retainer in each of said openings. Thus the conclusion that the combination of Grindle and Schnittker would have tubular cable retainers in the parallel openings of the housing is supported by substantial evidence.

Arlington has not asserted to the Board, or this Court, any construction of the term *inbound end [of the housing]* and certainly no construction to distinguish the claim structure from the prior art. Having not previously asserted any construction, it should be barred from doing so here. Further, to the extent that Arlington is implying a construction of “inbound end” as the inbound edge of the connector housing, it would be wrong. The ’831 Patent uses the terms inbound and outbound ends to mean a three-dimensional area. For example, Claim 6 of the ’831 Patent recites that the “generally oval inbound end contains two cable retainers.” Furthermore, Figure 3 of the ’831 Patent shows “tang accepting apertures 54A, 54B, 57A, 57B are formed in the inbound end 14 of the housing 12. The apertures are not located on the edge of the housing so that cannot be the proper construction.

The dividing line between the inbound end and outbound end of a connector would be the position of the junction box in an installed

connector. For example, flange 21 is referred to in the '831 specification as the "inner portion of the outbound end of the housing." A80 (3:20). The corresponding outbound end of Schnittker is the threaded portion with the reduced diameter. *Id.* (4:10-13). *See* Schnittker Fig. 2, Arlington Br. 24. Thus the inbound end of the Schnittker housing is the structure to the right of the external threads 44, and the opening in the inbound end of the housing is the first cavity 50, all the way up to annular surface 66. *Id.* (4:23-29). There is substantial evidence that the grounding ring of Schnittker is located within or inside the opening in the inbound end of the housing.

Furthermore the Board correctly found that when Grindle and Schnittker are combined, the cable retainer would be in the inbound end of the housing. A30-31

**C. The Board Properly Found that the Schnittker  
Grounding Ring is a Cable Retainer.**

Arlington challenges that Boards factual finding that the Schnittker grounding ring is a spring steel cable retainer. Arlington has not proffered any construction for this term. During the prosecution and before the Board, Arlington never contested obviousness on the grounds that the element in Schnittker is not made

of spring steel. To the extent it is arguing that now, it has waived that argument and should not be heard. *Singleton v. Wulff*, 428 U.S. 106, 120 (1976).

The claim does not recite any particular mechanism for securing. Arlington had the opportunity to amend its claim but chose not to. In fact, claim 3 does recite a particular mechanism for securing the cable retainer and that claim does not stand rejected in this reexamination. The Board entered a finding of fact that the grounding ring of Schnittker is a cable retainer. A23-24.

**D. The Board Properly Found, as a Matter of Fact, that the Combination of Schnittker and Grindle Shows Retainers that Guide said Separate Cables Toward said Cylindrical Outbound End**

Arlington contends that the references do not show “retainer tangs that guide and advance the cables toward said cylindrical outbound end.” Claim 1 of the ’831 Patent recites:

said retainers including a set of inwardly extending tangs to receive and engage said separate cables inserted from said inbound end and guide said separate cables toward said cylindrical outbound end in a manner that said separate cables are advanced to said outbound end

Arlington did not propose any construction of the term towards the outbound end. Naturally the Board gave this term its broadest

reasonable interpretation. Consistent with an interpretation that down the bore of Grindle is toward the outbound end, the Board found that the combination of Grindle and Schnittker A25 ([W]e find that the inwardly extending times of Schnittker's grounding ring (FF S3) incorporated into Grindle's duplex connector would function to receive, engage, and guide or permit forward movement of the metal clad cables from the inbound end through the grounding ring and towards an outbound end, *in a manner commensurate in scope with the language of independent claim 1.* (FF S2; see also Ci1.)" (emphasis added)). Given that Arlington did not propose any construction of this phrase to the Board and did not propose any construction to this Court, it should not be heard to argue that the Board erred as a matter of law. Plainly the Boards finding is supported by substantial evidence.

**E. The Tubular Spring Steel Adaptor is Obvious Based on the Prior Art**

In its Opening Brief, Arlington for the first time asserts that the recitation of "d) a tubular spring steel adaptor secured to said cylindrical outbound end of said housing," and specifically the recitation of spring steel. There is no question that Roeder shows a tubular

adaptor secured to said cylindrical outbound end. A2510 (Figs. 1 and 4)  
A2511 (2:12-18)

Arlington did not urge the Board that the use of spring steel would not be obvious and Arlington cannot do so for the first time before this Court. *Singleton v. Wulff*, 428 U.S. 106, 120 (1976).

Given that Arlington never put at issue the construction of spring steel, it is not surprising that the Board did not address this point in detail. The Board did have before it the claim construction order by Judge Caputo which construed spring steel as resilient steel.

The use of spring steel for a tubular adaptor is so well known that Arlington did not challenge the obviousness of its use before the Board. In fact, the '831 Patent incorporates Arlington's U.S. Patent 6,080,933 (the '933 Patent) by reference. The '933 Patent, rather than describe the tubular spring steel adaptor, simply refers to Arlington's U.S. Patent No. 5,373,106, published December 13, 1994 [A] for details regarding a spring steel adaptor. [933 Patent 3:1-10.] In fact, the very case that Arlington cites for the meaning of the term relates to an Arlington patent that was issued on November 30, 1993 disclosing the

spring steel adaptor. Arlington admitted this in its brief to the Board. A316-317.

The Board found that Roeder describes an electrical connector A17, and that use of an adaptor would be a mere substitution with a predictable benefit. A32. The Board also found that skilled artisans would have merely substituted one known connection means requiring a lock-nut and threads to secure it for one with a fastener with out-turned lugs. The combined teachings of Schnittker, Grindle and Roeder provide substantial evidence to support this conclusion.

#### **F. The Board Correctly Evaluated the Purported Evidence of Secondary Considerations**

In determining obviousness under 35 U.S.C. §103, the Board carefully weighed the objective evidence of nonobviousness together with the evidence forming the *prima facie* basis. To be given substantial weight in the determination of obviousness or nonobviousness, evidence of secondary considerations must be relevant to the subject matter as claimed, and therefore the examiner must determine whether there is a nexus between the merits of the claimed invention and the evidence of secondary considerations. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 305 n.42 (Fed. Cir. 1985). In particular,

an applicant asserting secondary considerations to support its contention of nonobviousness bears the burden of proof of establishing a nexus between the claimed invention and evidence of secondary considerations. For example, in the case of evidence of commercial success, this court has acknowledged that the applicant bears the burden of establishing a nexus, stating:

In the ex parte process of examining a patent application, however, the PTO lacks the means or resources to gather evidence which supports or refutes the applicant's assertion that the sale constitutes commercial success. *C.f., Ex parte Remark*, 15 USPQ2d 1498, 1503 (BPAI 1990) (evidentiary routine of shifting burdens in civil proceedings inappropriate in ex parte prosecution proceedings because examiner has no available means for adducing evidence). Consequently, the PTO must rely upon the applicant to provide hard evidence of commercial success.

*In re Huang*, 100 F.3d 135, 139-40 (Fed. Cir. 1996). *See also In re GPAC*, 57 F.3d 1573, 1580 (Fed. Cir. 1995); *In re Paulsen*, 30 F.3d 1475, 1482 (Fed. Cir. 1994) (Evidence of commercial success of articles not covered by the claims subject to the obviousness rejection was not probative of nonobviousness).

Objective evidence of nonobviousness, including commercial success, must be commensurate in scope with the claims. *In re Tiffin*, 448 F.2d 791 (CCPA 1971) (evidence showing commercial success of

thermoplastic foam "cups" used in vending machines was not commensurate in scope with claims directed to thermoplastic foam "containers" broadly). In order to be commensurate in scope with the claims, the commercial success must be due to claimed features, and not due to unclaimed features. *Joy Techs, Inc. v. Manbeck*, 751 F. Supp. 225, 229 (D.D.C. I 990), *aff'd*, 959 F.2d 226, 228 (Fed. Cir. 1992) (Features responsible for commercial success were only recited in allowed dependent claims, and therefore the evidence of commercial success was not commensurate in scope with the broad claims at issue.) “[W]e have consistently held that a patent applicant ‘need not sell every conceivable embodiment of the claims in order to rely upon evidence of commercial success.’ *In re DBC*, 545 F.3d 1373, 1384 (Fed.Cir.2008) (quoting *Applied Materials, Inc. v. Adv. Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1570 (Fed.Cir.1996)). Commercial success evidence should be considered ‘so long as what was sold was within the scope of the claims.’ *Id.*” *In re Glatt Air Techniques, Inc.*, 630 F.3d 1026, 1030 (Fed. Cir. 2011); *see also In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011).



An inventor's opinion as to the purchaser's reason for buying the product is insufficient to demonstrate a nexus between the sales and the claimed invention. *In re Huang*, 100 F.3d at 140. Further, gross sales figures do not show commercial success absent evidence as to market share, *Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1026-27 (Fed. Cir. 1985), or as to the time period during which the product was sold, or as to what sales would normally be expected in the market, *Ex parte Standish*, 10 USPQ2d 1454, 1458 (BPAI 1988).

Establishing long-felt need requires objective evidence that an art recognized problem existed in the art for a long period of time without solution. In particular, the evidence must show that the need was a persistent one that was recognized by those of ordinary skill in the art. *In re Gershon*, 372 F.2d 535, 539 (CCPA 1967). The relevance of long-felt need and the failure of others to the issue of obviousness depend on several factors. First, the need must have been a persistent need that was recognized by those of ordinary skill in the art. *Orthopedic Equip. Co.*, 707 F.2d at 1382; *see also In re Gershon*, 372 F.2d at 539. Second, the long-felt need must not have been satisfied by another before the invention by applicant. *Newell Cos. v. Kenney Mfg. Co.*, 864 F.2d 757,

768 (Fed. Cir. 1988) (“[O]nce another supplied the key element, there was no long-felt need or, indeed, a problem to be solved.”) Third, the invention must in fact satisfy the long-felt need. *In re Cavanagh*, 436 F.2d 491, 496 (CCPA 1971). [“L]ong-felt need is analyzed as of the date of an articulated identified problem and evidence of efforts to solve that problem.” *Texas Instruments, Inc. v. ITC*, 988 F.2d 1165, 7178 (Fed. Cir. 1993).

Evidence pertaining to secondary considerations must be taken into account whenever present; however, it does not necessarily control the obviousness conclusion. *See, e.g., Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1372 (Fed. Cir. 2007) (“the record establish[ed] such a strong case of obviousness” that allegedly unexpectedly superior results were ultimately insufficient to overcome obviousness conclusion); *Leapfrog Enters. Inc. v. Fisher-Price Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007)(“given the strength of the *prima facie* obviousness showing, the evidence on secondary considerations was inadequate to overcome a final conclusion” of obviousness); and *Newell Cos.*, 864 F.2d at 768.

### G. Objective Indicia of Non-Obviousness

The Board made extensive findings of fact regarding Arlington's arguments, all of which are supported by substantial evidence. [Board Opinion pp. 34-42, A35-43 and Decision on Request for Rehearing, pp. 7-10, A59-62.]

The Board found that the evidence submitted did not establish commercial success. Particularly that in the absence of evidence of market share, the evidence presented was a weak showing of commercial success. There is substantial evidence to back up this conclusion. First, Arlington does not claim to have shown market share, and second, the evidence submitted by the requester demonstrates lack of sufficient market share.

Evidence related solely to the number of units sold provides a very weak showing of commercial success, if any. *Tec Air Inc. v. Denso Mfg.*, 192 F.3d 1349 at 1353 (Fed. Cir. 1999). Arlington has not provided market share information to put its evidence into context. Without the context of market share, sales figures do not establish commercial success. *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (This court has noted in the past that evidence related solely to the number of units

sold provides a very weak showing of commercial success, if any. *See Cable Elec. Prods., Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1026-27, 226 USPQ 881, 888 (Fed.Cir.1985) (finding that sales of 5 million units represent a minimal showing of commercial success because “[w]ithout further economic evidence, it would be improper to infer that the reported sales represent a substantial share of any definable market”). In addition, Requester has provided context in the form of the Kiely Declaration, which demonstrates the lack of any substantial commercial success (of a product that is not even coextensive with the claim). Notwithstanding Arlington’s failure, Requester did provide some contextual evidence. As shown in the Kiely Decl., ¶¶ 46-51, A823, the Patent Owner's raw sales figures are not impressive, even when considered against the sales volume of conventional duplex connectors sold by Arlington and Requester 45.5 million conventional duplex connectors vs. 25 million purportedly patented duplex connectors.) These numbers demonstrate that at least substantial evidence supporting the Board’s findings.

Arlington incorrectly relies on *Crocs Inv. v. International Trade Commission*, 598 F.3d 1294 (Fed. Cir. 2010) for the proposition that all

it needs to establish a *prima facie* case of nexus is to show commercial success of a product that is the invention disclosed and claimed. *Crocs* is inapplicable to a reexamination and Arlington cites no precedence that such a minimal showing is sufficient.

The *Crocs* case was an adversarial matter and held that in a fully litigated matter (ITC or District Court) the burden of persuasion shifts back to a defendant when a *prima facie* case of a nexus is established by showing that a successful product is the claimed invention.

First, this reexamination is before the PTO and not in a forum that permits an adversary (the PTO nor the requester) to take full discovery and conduct cross examination. In examining a patent application, the PTO lacks the means or resources to gather evidence which supports or refutes the applicant's assertion that the sale constitute commercial success. *C.f. Ex parte Remark*, 15 USPQ2d 1498, 1503 (Bd. Pat. App. & Int. 1990) (evidentiary routine of shifting burdens in civil proceedings inappropriate in ex parte prosecution proceedings because examiner has no available means for adducing evidence). Consequently, the PTO must rely upon the applicant to provide hard evidence of commercial success. *In re Huang*, 100 F.3d

135, 139-40, 40 USPQ2d 1685, 1689 (Fed. Cir. 1996). *See also In re GPAC*, 57 F.3d 1573, 1580, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995); *In re Paulsen*, 30 F.3d 1475, 1482, 31 USPQ2d 1671, 1676 (Fed. Cir. 1994) (Evidence of commercial success of articles not covered by the claims subject to the 35 U.S.C. 103 rejection was not probative of nonobviousness). Arlington has not provided sufficient uncontroverted hard evidence to meet this standard.

Second, the term "nexus" designates a factually and legally sufficient connection between the evidence of commercial success and the claimed invention so that the evidence is of probative value in the determination of nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 7 USPQ2d 1222 (Fed. Cir. 1988). Gross sales figures do not show commercial success absent evidence as to market share, *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 226 USPQ 881 (Fed. Cir. 1985). Arlington has not shown sufficient uncontroverted evidence to establish a nexus and as such the Board's findings are supported by substantial evidence.

Accordingly, the Board's conclusion that Arlington did not present substantial objective evidence of nonobviousness is correct as a matter of law and should be affirmed.

### **CROSS-APPEAL**

**I. The Board Incorrectly Accorded Claim 1 the Filing Date of its Grandparent Even Though the Grandparent Application Did Not Support Claim 1 in the Manner Required by Section 112.**

35 U.S.C. § 120 provides, in relevant part, that “An application for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States ... shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application ...” The determination of entitlement to the benefit of an earlier filing date is made on a claim-by-claim basis and the burden to show entitlement is on the applicant. *Technology Licensing Corporation v. Videotek, Inc.*, 745 F.3d 1316, 1327 (Fed. Cir. 2008).

The Board erred by limiting its inquiry to whether the '661 application disclosed a pair of parallel openings. The Board stated “Specifically, the Examiner finds that Figure 1 of the '661 patent shows

a housing (12) with two parallel openings in the inbound end.”

(RAN10.) Based upon this figure, the Examiner concluded that under the broadest reasonable interpretation that the limitation “a pair of parallel openings in said inbound end is supported by figures 1 and 2 of the ’661 patent.”

The broadest reasonable interpretation of claim 1 is that the housing must exhibit a pair of parallel openings in its inbound end. The housing, according to claim 1 is the element that has a cylindrical outbound end and a generally oval inbound end.

There is no question that the ’661 application discloses an insert with a pair of parallel openings in its inbound end. However the ’661 application does not disclose a housing as claimed in the ’831 Patent. Neither the examiner nor the Board identified any housing in the ’661 application that has a pair of parallel openings in its inbound end. The only housing disclosed in the ’661 application has a single, generally oval opening in its inbound end. A2564 (Fig. 1).

The housing having a pair of parallel openings was introduced in the ’831 application which described a “third preferred embodiment.” In this embodiment “the inbound end of the connector housing is



modified to greatly simplify the construction.” A79 (2:42-48). The modification was critical to the ’831 Patent. The modification was a housing having a pair of parallel openings in its inbound end. The modification was not present in the ’661 application. If it were, it would not be a modification. The Board erred in finding that ’831 claim 1 was supported in the manner required by Section 112 by the ’661 application.

## **II. The Board Incorrectly Refused to Consider the Merits of Obviousness of Claim 3**

### **A. Incorrect Effective Filing Date**

The Examiner determined, and the Board affirmed that claims 1, 4 and 5 are entitled to the filing date of the grandparent application. The Examiner determined that claims 2, 3 and 6 were only entitled to an effective filing date of 29 August 2001. A1204 (Right of Appeal Notice, p. 10.) Arlington did not dispute this finding. *Id*).

Bridgeport’s proposed ground R was that claim 3 is obvious in view of EC&M, A476-477 (Ex. L) published September 1999 in view of U.S. Patent 6,080,933 (Gretz ’933) A2552-2562 issued June 27, 2000, and further in view of U.S. Patent 2,749,148 (Schneiderman) A2513-2514 issued June 5, 1956. Each of these references is more than one

year before the effective filing date of claim 3 determined by the Examiner.

The Board incorrectly held that this “ground relies on a reference which fails to antedate the earliest effective filing date for at least independent claim 1 from which claims 3 and 4 depend.” A48. This reflects an error in law.

Dependence from a claim with an early effective filing date does not alone justify entitlement to that early filing date. Entitlement to an effective filing date is a claim-by-claim determination. Since the Board did not decide the merits of Ground R, this issue must be remanded.

The Board did not find the features of claim 3 (“said walls each including an annular ridge”) in the ’661 or ’884 application. The Board erred as a matter of law by according claim 3 the filing date of claim 1 from which it depends without finding support under Section 112 for the features recited in Claim 3. The Board failed to engage in the claim-by-claim analysis required under *Technology Licensing Corporation*.

**B. Had the Board Considered the Prior Art it Would Have Concluded that Claim 3 Was Obvious.**

The patentability of claim 3 should be remanded to the Board for further consideration. On remand the Board should find Schneiderman, patented in 1956 shows a duplex connector which uses a lock nut 17 to attach the housing (11) to a junction box (15). The inbound end of the “trunk” transitions to a generally oval configuration with branches 10 defining a pair of parallel openings in the inbound end. A2513-2515. The Gretz ’933 Patent shows the tubular spring steel adaptor secure to the cylindrical outbound end of the housing with “outwardly extending tangs” and a tubular spring steel cable retainer with inwardly extending tangs. A2552-2562. EC&M (Sept. 1999; Ex. L) is an advertisement by Arlington for duplex connectors having the cable retainers shown in the Gretz ’933 Patent. A476-477. The connector of Ex. L has a generally oval inbound end with only a single opening and an insert with two openings secured within the housing. It would have been obvious to integrate the housing and the insert or otherwise modify the insert to provide a housing with two openings as shown in Schneiderman. A2513-2515.

The '933 Patent A2559 (4:1-10) explicitly refers to O'Neil, A2524, also owned by Arlington and contains teachings to substitute such an adaptor for the lock nut previously used as shown in Schneiderman. Both EC&M (Sept. 1999) A477 and Gretz '933 (A2553 (Figs. 3-5) and A2556 (Figs. 9-14)) show and describe tubular spring steel cable retainers and a tubular spring steel adaptor secured to a cylindrical outbound end of a connector. No modification of EC&M (Sept. 1999) is needed to use two cable retainers and the modifications to use the tubular spring steel cable retainers instead of the other cable retention elements are contained in the Gretz '933 Patent. A2558 (1:8-2:49).

The devices shown in EC&M (Sept. 1999) also have a generally oval insert secured in the inbound end of a connector housing. The Arlington 3838ST connector has an annular ridge in the insert which keeps the cable retainer from being pushed through the insert and therefore has the function of "securing said retainers in said openings" according to claim 3. Arlington does not deny this and did not deny it in the response to the Office Action it filed July 13, 2007. A2037. In addition the Gretz '933 Patent shows a shoulder (34) which constitutes an annular ridge. A2553 (Fig. 2), A2559 (4:31-33). Even if EC&M

(Sept. 1999) did not show an annular ridge, such a modification would have been obvious to one of ordinary skill in the art. The changes are mere substitutions of known elements with no changes in respective functions and only known, predictable results. These modifications would have been obvious to one of ordinary skill in the art. The Board made no contrary findings.

### CONCLUSION

For the foregoing reasons the rejection of claims 1, 5 and 6 should be affirmed and to the extent the rejections do not stand, the holding of entitlement to an early filing date should be reversed. The refusal to enter a rejection of claims 3 and 4 should be reversed.

November 12, 2013

Respectfully Submitted,

/s/ Mark E. Ungerman  
MARK E. UNGERMAN  
COUNSEL OF RECORD  
UNGERMAN IP PLLC  
2305 Calvert Street, N.W.  
Washington, DC 20008  
(202) 461-3200 (Telephone)  
(202) 461-3200 (Facsimile)  
[mungerman@ungermanip.com](mailto:mungerman@ungermanip.com)

*Counsel for Bridgeport Fittings, Inc.*

**CERTIFICATE OF SERVICE**

I, Elissa Matias, being duly sworn according to law and being over the age of 18, upon my oath depose and say that:

Counsel Press was retained by UNGERMAN IP PLLC, Attorneys for Cross-Appellant to print this document. I am an employee of Counsel Press.

On November 12, 2013 counsel for Cross-Appellant has authorized me to electronically file the foregoing Principal and Response Brief with the Clerk of Court using the CM/ECF System, which will serve via e-mail notice of such filing on all counsel registered as CM/ECF users. Additionally, I caused on this date a true and correct copy to be sent via e-mail to:

Kathryn L. Clune  
Crowell & Moring LLP  
1001 Pennsylvania Avenue, N.W.  
Washington, DC 20004  
(202) 624-2705 (Telephone)  
(202) 628-5116 (Facsimile)  
[kclune@crowell.com](mailto:kclune@crowell.com)

Paper copies will also be mailed to the above counsel at the time paper copies are sent to the Court.

Upon acceptance by the Court of the e-filed document, six paper copies will be filed with the Court, via Federal Express, within the time provided in the Court's rules.

/s/ Elissa Matias  
Elissa Matias  
Counsel Press

**CERTIFICATE OF COMPLIANCE**

I certify that the foregoing Corrected Principal and Response Brief of Plaintiff-Cross Appellant Arlington Industries, Inc. complies with the type-volume limitation of Federal Rule of Appellate Procedure 28.1(e)(2)(A)(i) and contains 11,178 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii) and Federal Circuit Rule 32(b).

I further certify that this brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6). The brief has been prepared in a proportionally spaced typeface using Microsoft Word in Century font, 14 point.

Dated: November 12, 2013

/s/ Mark E. Ungerman  
Mark E. Ungerman  
UNGERMAN IP PLLC  
2305 Calvert Street, N.W.  
Washington, DC 20008  
(202) 461-3200 (Telephone)  
(202) 461-3200 (Facsimile)  
[mungerman@ungermanip.com](mailto:mungerman@ungermanip.com)

*Counsel for Bridgeport Fittings, Inc.*